

# ABSTRACT OF THE DISCLOSURE

A sensor is for rapid optical distance measurement based on the confocal imaging principle. The sensor includes a light source, which emits an illuminating light with different spectral components, and an optical imaging system, through which the illuminating light is directed onto the surface of a measurement object. Different spectral components of the illuminating light are focused at different distances from the optical imaging system due to a chromatic aberration of the optical imaging system. Also provided are a beam splitter, arranged so that measuring light reflected back at least partially from the surface, is separated spatially from the beam path of the illuminating light. Further, a light receiver is included, which records the measuring light, separated spatially from the beam path of the illuminating light, with spectral resolution. Finally, an analysis unit determines the distance between the sensor and the surface from the intensities of measuring light recorded for different spectral components.